

**WHAT IS CLAIMED IS:**

- 1) A formulation comprising:
  - 5 a) at least one nitrogen-free polysiloxane compound,
  - b) at least one polyamino- and/or polyammonium-polysiloxane compound b1) and/or at least one amino- and/or ammonium-polysiloxane compound b2)
  - c) optionally one or more silicone-free surfactants,
  - 10 d) optionally one or more coacervate phase formation agents,
  - e) optionally one or more carrier substances.
- 2) The formulation as claimed in claim 1, characterized in that it contains, based on the total amount of components a) and b),
  - 15 from 5 to 99% by weight of component a) and from 1 to 95% by weight of component b).
- 3) The formulation as claimed in claim 1 or 2, in which the component e) is selected from solid carrier substances f) and/or liquid carrier substances g).
- 20 4) The formulation as claimed in one of claims 1 to 3, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 1500 parts by weight of components c), d) and e).
- 25 5) The formulation as claimed in one of claims 1 to 4, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 70 parts by weight of component c).
- 30 6) The formulation as claimed in one of claims 1 to 5, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 10 parts by weight of component d).
- 7) The formulation as claimed in one of claims 1 to 6, characterized in that it

contains, based on 100 parts by weight of components a) and b), from 0 to 710 parts by weight of component f).

8) The formulation as claimed in one of claims 1 to 7, characterized in that it contains, based on 100 parts by weight of components a) and b), from 0 to 710 parts by weight of component g).

9) The formulation as claimed in one of claims 1 to 8, characterized in that component a) is at least one constituent which is selected from the group consisting of: straight-chain, cyclic, branched and partially crosslinked polyorganosiloxanes.

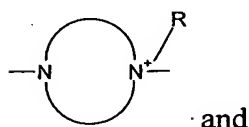
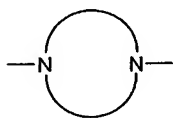
10) The formulation as claimed in one of claims 1 to 9, characterized in that the polyamino- and/or polyammonium-polysiloxane compound b1) is selected from polysiloxane compounds which contain at least one unit of the formula (I):

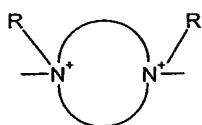


in which Q is selected from the group consisting of:



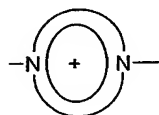
a saturated or unsaturated diamino-functional heterocycle of the formulae:





, and also

an aromatic diamino-functional heterocycle of the formula:

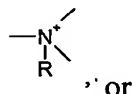


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a trivalent radical of the formula:



a trivalent radical of the formula:



or

a tetravalent radical of the formula



10

in which R is in each case hydrogen or a monovalent organic radical,

where Q is not bonded to a carbonyl carbon atom,

15

V is at least one constituent which is selected from the group consisting of  $V^1$ ,  $V^2$  and  $V^3$ , where

$V^2$  is selected from divalent, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon radicals which have up to 1000 carbon atoms (not counting the carbon atoms of the polysiloxane radical  $Z^2$  defined below) and may optionally contain one or more groups selected from

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-O-, -CONH-,

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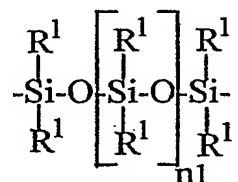
-CONR<sup>2</sup>-, in which R<sup>2</sup> is hydrogen, a monovalent, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon

radical which has up to 100 carbon atoms, may contain one or more groups selected from -O-, -NH-, -C(O)- and -C(S)-, and may optionally be substituted by one or more substituents selected from the group consisting of a hydroxyl group, an optionally substituted heterocyclic group preferably containing one or more nitrogen atoms, amino, alkylamino, dialkylamino, ammonium, polyether radicals and polyether ester radicals, where, when a plurality of -CONR<sup>2</sup> groups is present, they may be the same or different,

-C(O)- and -C(S)-,

the V<sup>2</sup> radical may optionally be substituted by one or more hydroxyl groups, and

the V<sup>2</sup> radical contains at least one -Z<sup>2</sup>- group of the formula



in which

R<sup>1</sup> may be the same or different and is selected from the group consisting of: C<sub>1</sub> to C<sub>22</sub> alkyl, fluoro(C<sub>1</sub>-C<sub>10</sub>)alkyl and C<sub>6</sub>-C<sub>10</sub> aryl, and n<sub>1</sub> = from 20 to 1000,

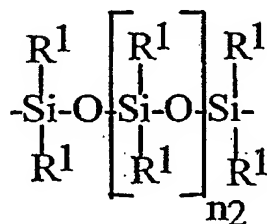
V<sup>1</sup> is selected from divalent, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon radicals which have up to 1000 carbon atoms and may optionally contain one or more groups selected from

-O-, -CONH-,

-CONR<sup>2</sup>-, in which R<sup>2</sup> is as defined above, where the R<sup>2</sup> groups in the

$V^1$  and  $V^2$  groups may be the same or different,

-C(O)-, -C(S)- and -Z<sup>1</sup>-, where -Z<sup>1</sup>- is a group of the formula



5 in which

$R^1$  is as defined above, where the  $R^1$  groups in the  $V^1$  and  $V^2$  groups may be the same or different, and

$n_2 = \text{from } 0 \text{ to } 19,$

10 and the V<sup>1</sup> radical may optionally be substituted by one or more hydroxyl groups, and

V<sup>3</sup> is a trivalent or higher-valency, straight-chain, cyclic or branched, saturated, unsaturated or aromatic hydrocarbon radical which has up to 1000 carbon atoms, may optionally contain one or more groups selected from

-O-, -CONH-, -CONR<sup>2</sup>-, in which R<sup>2</sup> is as defined above, -C(O)-, -C(S)-, -Z<sup>1</sup>- which is as defined above, -Z<sup>2</sup>- which is as defined above and Z<sup>3</sup>, where Z<sup>3</sup> is a trivalent or higher-valency organopolysiloxane unit, and

20 may optionally be substituted by one or more hydroxyl groups,

where, in said polysiloxane compound, in each case one or more V<sup>1</sup> groups,  
one or more V<sup>2</sup> groups and/or one or more V<sup>3</sup> groups may be present,  
with the proviso

- that said polysiloxane compound contains at least one V<sup>1</sup>, V<sup>2</sup> or V<sup>3</sup> group which contains at least one -Z<sup>1</sup>-, -Z<sup>2</sup>- or Z<sup>3</sup> group, and
- that the tri- and tetravalent Q radicals either serve to branch the main

chain formed from Q and V, so that the valencies which do not serve for bonding in the main chain bear further branches formed from  $-[Q-V]$ -units, or the tri- and tetravalent Q radicals are saturated with  $V^3$  radicals within a linear main chain without formation of a branch,

5 and wherein the positive charges resulting from ammonium groups are neutralized by organic or inorganic acid anions, and acid addition salts thereof.

11) The formulation as claimed in one of claims 1 to 10, characterized in that the  
10 amino- and/or ammonium-polysiloxane compound b2) is a polysiloxane compound which contains amino and/or ammonium groups in the pendent groups of a polyorganosiloxane main chain.

12) The formulation as claimed in one of claims 1 to 11, characterized in that the  
15 silicone-free surfactant as component c) is at least one constituent which is selected from nonpolymerized, organic, quaternary ammonium compounds.

13) The formulation as claimed in one of claims 1 to 12, characterized in that the  
20 coacervate phase formation agent as component d) comprises at least one constituent which is selected from cationic, silicone-free polymer compounds.

14) The formulation as claimed in one of claims 3 to 13, characterized in that the  
25 solid carrier substance f) is at least one constituent which is selected from the group of the water-soluble compounds which have a solubility in water of at least 100 grams/liter at 20°C.

15) The formulation as claimed in one of claims 3 to 14, characterized in that the  
30 liquid carrier substance g) is at least one constituent which is selected from the group consisting of water and water-miscible organic solvents.

16) The formulation as claimed in one of claims 1 to 15, characterized in that it is solid or liquid at 40°C.

- 17) A process for preparing the formulation as claimed in one of claims 1 to 16,  
which comprises the steps of:
- 5 a) mixing components a) and b) to give a homogeneous premixture, and  
b) optionally introducing components c), d) and/or e).
- 18) The use of the formulation as claimed in one of claims 1 to 16 in cosmetic  
formulations, in laundry detergents or for the surface treatment of substrates.
- 10 19) The use of the formulation as claimed in one of claims 1 to 16 and 18 for  
fiber treatment or fiber finishing.
- 20) The use of the formulation as claimed in one of claims 1 to 16, 18 and 19 as a  
formulation for the treatment of textiles and other natural and synthetic  
15 fiberlike materials including paper.
- 21) The use of the formulation as claimed in one of claims 1 to 16, 18, 19 and 20  
as a softener.